

* Note that all responses to this action should be sent to Art Unit 1796 .

Specification

The specification should be updated via an amendment when related or corresponding cases are patented or abandoned.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C.

102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,4-14 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 047077 see abstract; or USP 4758654 see cols. 1-5; USP 5955569 see cols. 1-4.

EP 047077 unpolymerized gaseous monomers are removed from a solid olefin polymer by (1) conveying polymer to a purge vessel in a gas stream, (I); (2) feeding a purge gas (I) to the vessel; (3) counter currently contacting the polymer and (II) in the vessel to produce (i) a second gas stream containing (II), (ii) (I) and the gaseous monomers, and (iii) a polymer stream having a reduced amount of gaseous monomers, and (4) recycling a portion of the second gas stream to the vessel. (I) and (II) are inert to polymer and monomers and contain no oxygen.

Preferably the recycle stream is used as (I) or (II) and (II) is nitrogen. Pref. step (1) comprises conveying copolymer to the top of the vessel and down through the vessel in a plug flow fashion and step (2) comprises feeding (II) to the bottom of the vessel without removing the gaseous monomers. The polymer preferably contains less than 50 ppm of gaseous monomers after step (3).

The process is particularly applicable to granular, low-pressure polymerized low-density ethylene-hydrocarbon polymers.

USP 4758654 discloses a method for removing unpolymerized gaseous monomers from a solid olefin polymer in a single purge vessel while deactivating Ziegler-Natta catalysts and organometallic catalyst residues present in said solid olefin polymer which

comprises conveying said polymer in a first inert gas stream including a conveying gas, to a purge vessel having an upper zone, a lower zone and an intermediate zone connecting said upper zone to said lower zone, said upper zone having a diameter about 1.5 to 3.0 times the diameter of said lower zone, counter currently contacting said polymer with a purge gas in said upper zone to produce a second gas stream, discharging said second gas stream containing said purge gas, said conveying gas and said gaseous monomers, from said upper zone, directing said solid olefin polymer containing said catalysts from said upper zone through said intermediate zone and into said lower zone, feeding a second purge gas containing water into said lower zone in counter current contact with said solid olefin polymer, said water being present in said second purge gas in an amount sufficient to deactivate said Ziegler Natta catalysts and organometallic catalyst present in said solid olefin polymer, discharging said second purge gas from said lower zone immediately below said intermediate zone, and discharging from said lower zone said solid olefin polymer.

USP 5955569 discloses a process for solid phase polymerizing polyamide polymer comprising the steps of:

(a) passing an oxygen free gas, wherein the gas is characterized by a dew point less than 30.degree. C., through the interstitial space between particulate solid phase polyamide polymer, wherein the polymer contains an effective amount of a phosphorus-containing catalyst, at a temperature and for a time sufficient to sustain solid phase polymerization of said polyamide polymer at a reaction rate characterized by a catalyst factor, corresponding to the ratio of 3rd order rate constants of catalyst-containing polymer divided by uncatalyzed polymer, of greater than 1.2; and

(b) recovering polyamide polymer of increased molecular weight.

Each of the references discloses a process for separating volatile material from a polymer prepared from the same components as claimed by applicants. Note applicant(s) "comprising" is open language and does not exclude those additional moieties etc. disclosed herein. Since the disclosed heating method and temperature, are expressed differently and thus may be distinct from those claimed, it is incumbent upon applicant(s) to establish that they are in fact different and whether such difference is unobvious. In view of the above, there appears to be no significant difference between the reference(s) and that which is claimed by applicant(s). Any differences not specifically mentioned appear to be conventional. Consequently, the claimed invention

cannot be deemed as novel and accordingly is unpatentable.

Claim Rejections - 35 USC 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,4-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 047077 see abstract; or USP 4758654 see cols. 1-5; USP 5955569 see cols. 1-4 see abstract, claims.

Thus, the references disclose the same invention as that which is claimed by applicants except for the particular vessel temperature range during purging and total gas flow. It is noted by the Examiner that applicants has not claimed in each claim the particular amount of pressure, gas and weight% and it would be reasonable to concur that the amounts are not necessarily crucial to the success of the process. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ particular temperature and gas flow rate and/or parameters as known in the art, since it is well-established that merely selecting proportions and ranges is not patentable absent a showing of criticality. In re Becket, 33 U.S.P.Q. 33 (C.C.P.A. 1937). In re Russell, 439 F.2d 1228, 169 U.S.P.Q. 426 (C.C.P.A. 1971). Generally, it is prima facie obvious to determine workable or optimal values within a prior art disclosure through the application of routine experimentation. See In re Aller, 105 USPQ 233, 235 (CCPA 1955); In re Boesch, 205 USPQ 215 (CCPA 1980); and In re Peterson, 315 F.3d 1325 (CA Fed 2003).

Information Disclosure Statement

Note that any information disclosure must comply with 37 CFR § 1.98(b), which requires a list of the publications to include: the author (if any), title, relevant pages of the publication, date and place of publication to be submitted for consideration by the Office.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terressa M. Boykin whose telephone number is 571 272-1069. The Examiner can normally be reached Monday- Friday 9:30-6:00 (work at home).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272-1078.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Terressa M. Boykin/
Primary Examiner, Art Unit 1796